EPA Emergency Responders

EPA has 198 personnel (9/9/2017) supporting the response efforts for Hurricane Harvey and has established a Unified Command with other state and federal partners, and are in the field conducting work.

EPA has an organized emergency response program and is positioned to support FEMA, state, local and tribal partners. EPA Emergency Operations Centers (EOCs) coordinate response efforts and help deploying resources to support the emergency response and aftermath flooding. The National Incident Management Assistance Team, consisting of highly skilled response personnel from across the country, provides on-the-ground support for response work. These teams are made-up of scientists, engineers, accountants, lawyers and other professionals from throughout the EPA.

On Scene Coordinators (OSCs) coordinate all federal efforts with, and provide support and information to, local, state and regional response communities. An OSC is an agent of either EPA or the U.S. Coast Guard, depending on where the incident occurs. EPA's OSCs have primary responsibility for spills and releases to inland areas and waters. U.S. Coast Guard's OSCs have responsibility for coastal waters and the Great Lakes. In general, an OSC's key responsibilities include assessment, monitoring, response assistance, and evaluation during and after a response.

ASPECT

EPA's Airborne Spectral Photometric Environment Collection Technology (ASPECT) surveillance aircraft flew through the air above the Arkema chemical plant in Crosby, TX to monitor for airborne toxic chemicals. EPA's ASPECT Program is the nation's only 24/7/365 emergency airborne platform equipped with a suite of sensors and software mounted in a fixed-wing, single-engine aircraft and uses the principles of remote hazard detection to image, map, identify, and quantify chemical vapors and deposited radioisotopes. For example, it can detect chemicals and radiation while collecting aerial photos and videos for situational awareness during an emergency, day or night. The information collected can then provide first responders – emergency workers at the scene – with actionable information on the situation.

TAGA

The Trace Atmospheric Gas Analyzer (TAGA) is a self-contained mobile laboratory capable of real-time sampling of outdoor air or emissions. The instrumentation refers both to the analytical instrument and the mobile laboratory built around it. This versatile mobile monitoring system offers a wide variety of services to assist EPA with cost-effectively conducting investigatory activities.

The instrumentation aboard a TAGA mobile laboratory allows real-time monitoring and analyzes for many organic and inorganic compounds at the part-per-billion by volume (ppbv) levels or lower. The TAGA has high-precision Global Positioning System (GPS) and Geographical Information System (GIS) to pinpoint any identified chemicals/gases sampling locations on a map.

PHILIS

EPA's Portable High-throughput Integrated Laboratory Identification System (PHILIS) mobile laboratory is used for remote or on-site analysis during natural disasters, accidental releases, man-made, and other incident response actions. It was created to increase capabilities and capacity to analyze contaminated environmental samples – soils, waters, surface wipes, and air matrices. PHILIS has the capability to analyze samples at detection limits relevant to health-based clearance levels. It is a National Environmental Laboratory Accreditation Program (NELAP) Accredited & Clean Water Act certified laboratory and part of EPA's Emergency Response Laboratory Network (ERLN).

HOW IS EPA ASSESSING POSSIBLE DAMAGE TO SUPERFUND SITES?

*EPA completed site assessments at all **43 Superfund sites** affected by the storm. Of these sites, two (San Jacinto and U.S. Oil Recovery) require additional assessment efforts. Assessments of these sites will take several days to complete.*

*The **San Jacinto Waste Pits site** has a temporary armored cap designed to prevent migration of hazardous material. EPA remedial manager is onsite and overseeing the assessment. Crews continue to surveying portions of the cap that are submerged. Some areas that rock been displaced and liner is exposed. The potential responsible party has mobilized heavy equipment and is placing rock on different places on the armored cap to repair the defensive surface. The liner is in place and functional so we don't have any indication that the underlying waste materials have been exposed. If we find an breach in the exposed liner, we direct the responsible party to collect samples to determine if any materials have been released. Also, EPA has dive teams to survey the cap underwater if needed.*

*Work to address flood water from the storm has continued at the **U.S. Oil Recovery site** with nine vacuum truckloads of approximately 45,000 gallons of captured flood water being removed and shipped offsite for disposal. No sheen or odor was observed in the overflowing water, and an additional tank is being used to maintain freeboard to keep captured flood water on-site.*

EPA has directed potential responsible parties or independently started collecting samples from the 43 Superfund sites to further investigate any impacts from the storm. Sampling efforts of all 43 sites is expected to be completed early next week with sample results will be available soon.

EPA, TCEQ and other authorities will continue to provide additional updates as we gather them. We encourage the community to continue to follow the expert safety advice of local officials.

IS EPA SUPPORTING HURRICANE IMPACTED INDUSTRIAL FACILITIES?

Arkema Facility, Crosby, TX

At the Arkema chemical plant in Crosby, emergency responders undertook a 24-hour operation to monitor the facility due to fires that erupted on August 31 and September 1, 2017. EPA has completed its response support to the Crosby Volunteer Fire Department and the Harris County Fire Marshal's Office for the catastrophic event at Arkema.

EPA and partners monitored smoke and air quality, the potential for additional fires in the area, and had aerial assets deployed. EPA also collected downstream surface water samples at four locations outside the evacuation zone, near residential areas. Each sample was analyzed for ***volatile organic chemicals*** *and* ***semi-volatile organic chemicals*** *likely to come from the Arkema plant – neither were detected in the surface water runoff samples. Non-quantifiable and compounds are not reported. It is important to note that chemical analysis alone cannot be used as an indication of water safety. In a flood situation, there are multiple risk factors that can cause harm; industrial chemicals are only one of those risk factors.*

EPA also sent its aerial surveillance aircraft to test resulting smoke from fires at Arkema. The Airborne Spectral Photometric Collection Technology (ASPECT) aircraft found no exceedances of the Texas comparison values. ASPECT conducted a screening level assessment to evaluate the unreported or undetected releases of hazardous materials or contaminants at the Arkema plant in Crosby, Texas from August 30, 2017 through September 7, 2017. The screening level results from ASPECT were compared to the ASPECT list of Texas Commission on Environmental Quality (TCEQ) short-term Air Monitoring Comparison Values (AMCVs) and EPA ***found no exceedances of the short-term AMCVs****. In addition, the ASPECT was requested to monitor for peroxide, which was the source material for the fire.*

The TCEQ has an open investigation into the Arkema incident that will include an evaluation of any impacts due to the fires at the site. Additionally, after the final notifications are received, the TCEQ will evaluate the reported emissions events to determine compliance with applicable rules, permit provisions, and notification and reporting requirements. The TCEQ and Harris County Pollution Control are coordinating post-event monitoring, sampling, and complaint response activities. EPA has ordered Arkema to provide a detailed timeline of events and to respond within 10 days to questions about the handling of organic peroxides, which are combustible if not kept refrigerated, the amount of chemical materials, and the measures taken in advance to guard against flooding and loss of electricity. The U.S. Chemical Safety Board has initiated an investigation at the facility.

HOW IS DEBRIS BEING MANAGED?

TCEQ has approved 118 Temporary Debris Management Sites in areas under the Federal or State Disaster Declaration designations. TCEQ regional offices and local authorities are actively overseeing the siting and implementation of debris and waste management plans in the affected area.